

water quality or other tests are most appropriate for the present location of the generation device **10**. The communication system **17** can also be used to turn the generation device **10** on or off, to pre-heat the device prior to use, or to deactivate the system in the event the system is relocated without advance warning, such as in the event of theft.

[0022] This information can be advantageously monitored through the use of a web-based utility monitoring system, such as those produced by Teletrol Systems, Inc. of Bedford, N.H.

Distribution

[0023] The use of the monitoring and communication system described above facilitates the use of a variety of utility distribution systems. For example, with reference to FIG. 2, an organization **30**, such as a Government agency, non-governmental agency (NGO), or privately funded relief organization, a corporation, or a combination of these, could provide distributed utilities, such as safe drinking water or electricity, to a geographical or political area, such as an entire country. The organization **30** can then establish local distributors **31A**, **31B**, and **31C**. These local distributors could preferably be a monitoring station **20** described above. In one possible arrangement, organization **30** could provide some number of generation devices **10** to the local distributor **31A**, etc. In another possible arrangement, the organization **30** could sell, loan, or make other financial arrangements for the distribution of the generation devices **10**. The local distributor **31A**, etc. could then either give these generation devices to operators **32A**, **32B**, etc., or provide the generation devices **10** to the operators through some type of financial arrangement, such as a sale or micro-loan.

[0024] The operator **32** could then provide distributed utilities to a village center, school, hospital, or other group at or near the point of water access. In one preferred embodiment, when the generation device **10** is provided to the operator **32** by means of a micro-loan, the operator **32** could charge the end users on a per-unit bases, such as per watt hour in the case of electricity or per liter in the case of purified water. Either the local distributor **31** or the organization **30** may monitor usage and other parameters using one of the communication systems described above. The distributor **31** or the organization **30** could then recoup some of the cost of the generation device **10** or effect repayment of the micro-loan by charging the operator **32** for some portion of the per-unit charges, such as 50%. The communication systems described additionally can be used to deactivate the generation device **10** if the generation device is relocated outside of a pre-set area or if payments are not made in a timely manner. This type of a distribution system may allow the distribution of needed utilities across a significant area quickly, while then allowing for at least the partial recoupment of funds, which, for example, could then be used to develop a similar system in another area.

[0025] In view of the foregoing, it will therefore be understood that the scope of the invention as defined in the following claims is not limited to the embodiments described herein, and that the above and numerous additional variations and modifications could be made thereto without departing from the scope of the invention.

What is claimed is:

1. A monitoring system for distributed utilities, the monitoring system comprising:

a generation device for converting an available resource to a desired utility, the generation device characterized by a plurality of operating parameters;
a remote controller for modifying operation of the generation device; and
a self-locating device having an output to the remote controller indicative of the location of the generation device.

2. The monitoring system of claim 1, further comprising an input sensor for measuring the available resource entering the generation device.

3. The monitoring system of claim 2, further comprising an output sensor for measuring the amount of the desired utility leaving the generation device.

4. The monitoring system of claim 3, further comprising a local controller for concatenating the measured available resource entering and the desired utility leaving the generation device on the basis of the input and output sensors.

5. The monitoring system of claim 4, wherein the generation device is a water purification device.

6. The monitoring system of claim 1, wherein the remote controller modifies operation of the generation device based on the location of the generation device.

7. The monitoring system of claim 1, further comprising at least one sensor for measuring at least one parameter of the plurality of operating parameters of the generation device.

8. The monitoring system of claim 3, further comprising a telemetry module for communicating measured input and output parameters to a remote site.

9. The monitoring system of claim 8, wherein the telemetry module is a cellular communications system.

10. The monitoring system of claim 8, wherein the telemetry module is a wireless system.

11. The monitoring system of claim 1, further comprising a remote actuator for varying operating parameters of the generation device based on remotely received instructions.

12. The monitoring system of claim 1, wherein the self-locating device is a global positioning system.

13. A method for monitoring a generation device comprising:

providing a generation device for converting an available resource to a desired utility, the generation device characterized by a plurality of operating parameters;
coupling an input sensor for measuring the available resource entering the generation device;

coupling an output sensor for measuring the amount of desired utility leaving the generation device;

coupling a local controller to the input and output sensor for concatenating the measured available resource entering and the amount of desired utility leaving the generation device on the basis of the input and output sensors;

providing a remote controller for modifying the operation of the generation device based on the concatenated measured available water entering and desired utility leaving the generation device; and

providing a self-locating device having an output to the remote controller indicative of the location of the generation device.

14. The method of claim 13, further comprising:

providing communication between a telemetry module and the controller; and